

Linear; entirely black, covered with short, brown, sericeous pubescence; head large and nearly as wide as the thorax; eyes coarsely granulated; thorax longer than wide, a little wider than the elytra, its base at middle with a diagnostic, V-shaped notch as wide as the scutellum; anal style moderately long, rather robust. Length 5 mm.

Seven specimens: five from Josephine Co., Oregon, June 8, and one from Plumas Co., California, June 14; all collected by Mr. F. W. Nunenmacher.

The type from Josephine Co., Oregon, is placed in the writer's collection; paratypes are in the collection of Mr. F. W. Nunenmacher, to whom this species is dedicated.

This species is nearest *Mordellistena unicolor* Lec., or *sericans* Fall., but can at once be distinguished by the triangular-shaped notch at the base of the thorax. Some of the specimens at hand have a very small rudimentary ridge on the tibia and first joint of the hind tarsus.

This should follow *Mordellistena ambusta* in systematic arrangement.

NEW NEARCTIC CRANE-FLIES (TIPULIDÆ,
DIPTERA) PART V.

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SUBFAMILY LIMNOBIINÆ.

Genus *Gonomyia* Meigen.

***Gonomyia* (*Gonomyia*) *kansensis*, new species.**

Belongs to the *cognatella* group; antennæ orange basally; wings with cell *1st M*₂ open by the atrophy of the outer deflection of *M*₃; male hypopygium with the third pleural appendage powerful, bifid, the two arms subequal.

Male.—Length 4.5 mm.; wing 4.7 mm.

Rostrum and palpi dark brown. Antennæ with the basal segments orange, the flagellum dark brown with a dense pale pubescence. Head mostly pale, orange.

Thoracic notum brownish yellow with a sparse, grayish bloom. Pleura yellowish with a broad, dark brown, pleural stripe extending from the cervical sclerites to the base of the abdomen. Halteres

brownish. Legs with the coxæ and trochanters pale; femora and tibiæ light brown; tarsi towards the tips dark brown. Wings with a grayish yellow suffusion; stigma pale brown, indistinct; veins dark brown. Venation about as in *cognatella*: *Sc* ending just before the origin of the sector; cell *R*₂ very large; cross-vein *r-m* very long; cell 1st *M*₂ open by the atrophy of the outer deflection of *M*₃; basal deflection of *Cu*₁ at the fork of *M*.

Abdomen dark brown, the tergal segments with the apical third yellow so the abdomen appears broadly annulated; hypopygium yellowish. Hypopygium of the *cognatella* type but differing notably in the details of structure: outer pleural lobe with long bristles on the outer half along the margin and a single stout bristle on the outer face near the base; pleural appendages as follows: outer appendage (2) (Fig. 1) very long and slender, with numerous hairs along the margin; pleural appendages 3 (Fig. 2) bifid as in *cognatella*, but shorter and more powerfully constructed, the dorsal arm blackened and strongly chitinized at its tip, the two arms about equal; appendage *d* (Fig. 3) is rather stout with about three tubercles before the apex each with a long bristle; at the tip with a long, curved bristle. Penis-guard (Fig. 4) as seen from the side shaped as in figure. Gonapophyses (Fig. 5) with an acute spine near the base.

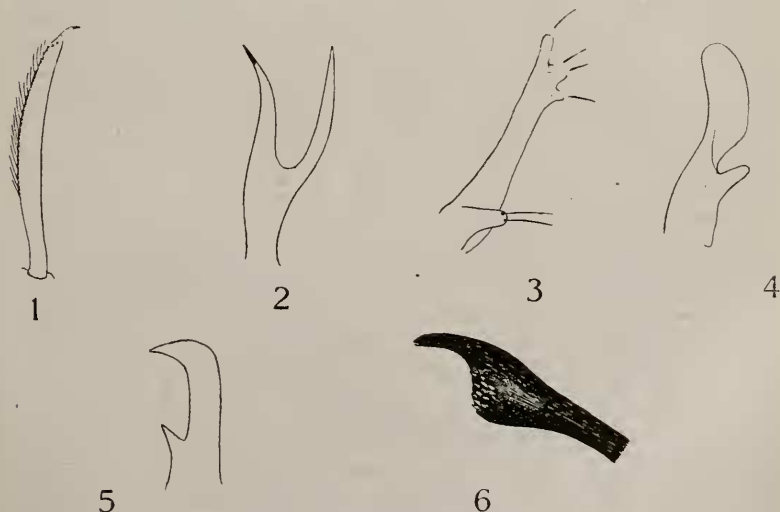


Fig. 7.—1-5, *Gonomyia kansensis*, n. sp., hypopygial details; 6, *Molophilus ursus*, n. sp., ventral hook of hypopygium.

Habitat.—Kansas.

Holotype.—♂, Jetmore, Hodgeman Co., Kansas, July 18, 1917 (Alexander).

Allotype.—♀, Larned, Pawnee Co., Kas., Aug. 1, 1917 (Alexander).

Paratypes.—4 ♀s, 1 ♂, with the allotype.

A review of the species of this genus in the United States will be found in the Proceedings of The Academy of Natural Sciences of Philadelphia, October, 1916, p. 508-528, Figs. 17-33, wings, and 59-91, hypopygial details. The lettering of the appendages is explained in that article under the consideration of *G. cognatella* and *G. florens*.

The majority of these specimens were taken along the Arkansas River near Larned; in life the specimens appear very pale and teneral as though not fully coloured. The immature stages are spent in the moist sand along the river, pupæ being secured from which the adults were bred.

Genus *Molophilus* Curtis.

Molophilus perflaveolus, new species.

Antennæ of the male not elongated; general coloration very light yellow; male hypopygium with four long, slender, chitinized appendages that are slightly curved toward their tips.

Male.—Length about 3.5 mm.; wing 5 mm.

Rostrum and palpi dark brown. Antennæ with the basal segments yellowish, flagellar segments brown, oval, slightly elongated, bearing long verticils that are much longer than the segments that bear them. Head reddish yellow, darkest on the disk of the vertex.

Mesonotum light orange-yellow, the interspaces with a whitish bloom, on the præscutum bearing numerous long, erect hairs. Pleura orange-yellow, sparsely white pruinose. Halteres light yellow. Legs with the coxæ and trochanters yellow; femora light brown, paler basally; tibiæ and tarsi light brown. Wings light yellowish; veins yellow with long, pale hairs. Venation somewhat as in *M. flutonensis*; basal deflection of *Cu* longer than the deflection of *M*₃; *Cu*₁+*M*₃ not twice the length of the deflection.

Abdominal segments light brown; hypopygium elongated, light yellow, the pleural hooks black; abdomen clothed with

abundant long, pale hairs. Hypopygium with the pleural chitinized hooks four in number, very long and slender, not toothed, slightly curved toward the acute tips.

Habitat.—California.

Holotype.—♂, Fieldbrook, California, May 29, 1903, (H. S. Barber).

Molophilus spiculatus, new species.

Antennæ of the male not elongated; general coloration brown, the pseudosutural foveæ dark brown, conspicuous; male hypopygium with the dorsal pleural appendage short and broad, the dorsal face spiculate; ventral appendage long and slender with a few scattered teeth.

Male.—Length about 4 mm.; wing 5.3 mm.

Rostrum and palpi dark brown. Antennæ short, dark brown; second segment of the scape enlarged, cyathiform, dull yellowish; flagellar segments oval, slightly elongated. Eyes widely separated. Head gray, the anterior parts of the vertex and the occiput brighter coloured.

Pronotum yellow, medially with two dark brown spots. Mesonotal præscutum deep liver-brown, very sparsely gray pruinose; pseudosutural foveæ long and narrow, dark brown, conspicuous; space on the humeral angles before the foveæ yellowish continued back along the lateral margin of the sclerite to the wing-root; tuberculate pits conspicuous, separated from one another by a distance a little less than twice the diameter of one; remainder of the mesonotum bright brown. Pleura light brown. Halteres pale throughout. Legs with the coxæ and trochanters dull brownish yellow; femora dark brown apically, the basal half much paler; tibiæ dull yellow, broadly tipped with brown; tarsi brown, the basal portion of the metatarsi paler; last two tarsal segments almost black. Wings subhyaline or slightly grayish; veins brown, clothed with long, brown hairs. Venation Cu_{1+2} about equal to the first section of M_{1+2} alone.

Abdomen dark brown, the hypopygium elongated, reddish; abdomen clothed with abundant pale hairs. Hypopygium with the ventral, finger-like lobe stout with scattered elongate hairs. The four chitinized appendages of the hypopygium shaped as follows: dorsal lateral arm broad, flattened, slightly curved, on the

dorsal face set with abundant spicules, the extreme apex a cylindrical spine; this appendage is bent slightly dorsad at its tip; ventral appendage much longer and more slender from enlarged, brown bases, with about six scattered teeth, at the apex bent strongly ventrad.

Habitat.—Colorado.

Holotype.—♂, Platte Canyon, Colorado, altitude 10,000 feet, August 26, 1915, (Oslar).

Closest to *M. paulus* Bergroth (Alaska) but the hypopygial details different, the dorsal appendage of *paulus* being shaped as follows: short, bent slightly inward, the apex an acute point, the surface of the appendage indistinctly denticulate; teeth on the ventral appendage differently arranged.

Molophilus ursus, new species.

Antennæ of the male not elongated; general coloration dark brown, the pronotal scutellum and the humeral angles yellowish; male hypopygium short with the ventral hooks powerful, at about mid-length enlarged and densely set with sharp, appressed spines.

Male.—Length 3.5 mm.; wing 5 mm.

Female.—Length 4.5 mm.; wing 5.8 mm.

Rostrum and palpi dark brown. Antennæ short, dark brown, the flagellar segments oval-cylindrical with long, dark verticils. Head brownish gray with long bristles.

Pronotum light yellowish. Mesonotum dark brown, sparsely gray pruinose; a conspicuous light yellowish triangle occupying the humeral portions of the præscutum before the foveæ. Pleura dark brown. Halteres dark brown, the bases pale, the knobs with pale, silky hairs. Legs with the coxæ and trochanters yellowish; femora brown, pale at the extreme base; tibiæ and tarsi dark brown. Wings dark-coloured; veins dark brown with long, dark brown hairs. Venation: Cu_1 — M_3 moderate in length, a little shorter than the basal section of M_{1+2} ; in one paratype very much shorter, subequal to the basal deflection of Cu_1 .

Abdomen dark brown, the segments ringed caudally with paler; hypopygium short, stout, dark coloured; ventral hooks short and powerful (Fig. 7, *b*), narrow basally, gradually enlarged to about midlength, the outer angle thence produced outward as a strong, black, slightly curved tip, the middle portion of the ap-

pendage on the cephalic face densely beset with close, appressed spines.

Habitat.—New Mexico,

Holotype.—♂, Jemez Springs, New Mexico, altitude 6,400 feet; August 21, 1916. (John Woodgate).

Allotype.—♀, with the type.

Paratopotypes.—2 ♂♂.

Genus *Ulomorpha* Osten Sacken.

Ulomorpha sierricola, new species.

Size large, wing of the male 9 mm.; stigma of the wing pale brown, distinct.

Male.—Length 10 mm.; wing 9 mm.

Described from an alcoholic specimen.

Rostrum yellowish; palpi dark brown. Antennæ rather long and filiform, dark brown; flagellar segments elongate-cylindrical with numerous long bristles that are somewhat scattered, on the basal flagellar segments arranged in two distinct verticils, but on the terminal segments becoming much more scattered. Head dark brown above, paler beneath.

Thoracic dorsum dark brown, the humeral region of the præscutum paler. Pleura dull yellow. Halteres brown. Legs with the coxæ and trochanters dull yellow; femora dull yellow tipped with brown; tibiæ brownish yellow tipped with brown; tarsi dark brown. Wings with a strong, pale, brownish suffusion; stigma small, oval, brownish; veins brown; pubescence of the basal cells sparse and confined to the middle portions of the cells.

Abdominal tergites dark brown, including the hypopygium. Venation: vein R_{2+3} very short to lacking so that cell R_2 is very short-petiolate to sessile; cell M_1 lacking.

Abdominal tergites dark brown, including the hypopygium; basal sternites more yellowish.

Habitat.—Washington.

Holotype.—♂, Mt. Rainier, Washington.

In its pubescent wings this species suggests *Limnophila nigrilinea* Doane, but this last-named form has the venation entirely different and the resemblance is superficial only. From *Ulomorpha pilosella* (O. S.) it may be distinguished by its con-

spicuously larger size, distinct though pale stigma and slight differences in venation.

Genus *Eriocera* Macquart.

***Eriocera brevipila*, new species.**

Cell *M*₁ of the wings present; antennæ short in the male; size small (wing of the male about 13 mm.); general coloration light gray; body clothed with a pale, moderately long pubescence.

Male.—Length 10.5 mm.; wing 12.8 mm.

Rostrum dark brown; palpi elongated, black. Antennæ short (for the male sex of this group of species), if bent backward extending about to the wing-root; first segment short and stout, dark above, pale beneath; remaining segments dark brown; first flagellar segment a little reddish at the base, on the ventral face with about four stout spines. Head dull gray, on the vertex before the tubercle, surrounding the antennal bases and adjoining the inner margins of the eyes reddish; an indistinct delicate, brown median vitta.

Thorax light gray, the præscutum with four dark brown stripes, the median pair separated from one another by a distance that is a little less than the width of one, these stripes not attaining the suture; lateral stripes shorter but broader; pile on the thoracic interspaces abundant, pale, shorter than in *albihirta*; scutum gray, each lobe with two brown marks; scutellum gray with conspicuous white pile; postnotum dark brown. Pleura with a sparse pruinosity; dorso-pleural membranes more yellowish. Halteres pale, the knobs dark brown. Legs with the coxæ pale grayish pruinose with a dense white pile; trochanters dull yellowish; femora dark brown, the bases yellowish, on the four anterior legs, including only the extreme base; tibiæ brown, broadly tipped with still darker brown; tarsi dark brown. Wings with a pale, brownish gray suffusion, the costal and subcostal cells darker; stigma small, oval, brown; veins dark brown. Venation: *Sc* ending opposite the fork of *R*₂₊₃; cross-vein *r* at about one-third the length of *R*₂, far removed from the tip of *R*₁; basal deflection of *Cu*₁ nearly at the middle of cell *1st M*₂; cell *M*₁ present.

Abdominal tergites dark brownish gray pruinose, the apical half of the organ somewhat darker than the basal half; sternites

brown, grayish pruinose; male hypopygium small, the appendages of the pleurite long and slender.

Habitat.—California.

Holotype.—♂, Bair's Ranch, Redwood Creek, Humboldt Co., Cal., June 12, 1903. (H. S. Barber).

This species is much smaller than the related *E. albihirta* Alex., differing, moreover, in the shorter pile and the differently constructed male hypopygium.

Eriocera rubrinota, new species.

Coloration of the thoracic dorsum rusty red, remainder of the body, including the basal plates of the ovipositor, dark brown; cell M_1 absent.

Female.—Length 13 mm.; wing 11.5 mm.

Rostrum very short, brown; palpi dark brown with an indistinct grayish bloom and an indistinct median brownish line; vertical tubercle low with a deep notch.

Pronotum and mesonotum deep, rusty red without apparent markings. Pleura dark brown. Halteres dark brown, the extreme bases lighter coloured. Legs with the coxæ and trochanters dark brown; femora dark brown, yellow at their bases, these pale basal portions narrowest on the fore legs, broadest on the hind legs; tibiæ and tarsi dark brown. Wings suffused with brown; veins dark brown. Venation: *Sc* ending slightly beyond the middle of R_{2+3} ; R_{2+3} a little shorter than R_2 alone; cross-vein r inserted on R_2 , some distance beyond the fork of R_{2+3} ; basal deflection of Cu_1 just beyond the fork of M .

Abdomen dark, shiny, blackish brown, including the basal portions of the ovipositor.

Holotype.—♀, in the collection of Kansas University, labeled "No. 40" without locality, but almost certainly from Western America, along with the other Williston material in the collection.

This species is abundantly different from all the forms described from the New World. It comes in the group with *E. fuliginosa* O. S., *E. tristis* Alex., etc., but is readily separated from them by the coloration of the mesonotum and the colour and structure of the ovipositor.

(To be continued.)